

Customer No.: 31561
Application No.: 10/063,737
Docket No.: 8727-US-PA

REMARKS

Present Status of the Application

The Office Action rejected all presently-pending claims 16-22. Specifically, the Office Action rejected claims 16-22 under 35 U.S.C. 102(b), as being anticipated by Sharma et al. (US 5,990,547 and Honsinger et al. (US 5,500,804), respectively. Applicant respectfully requests reconsideration of those claims.

Discussion of Office Action Rejections

The Office Action rejected claims 16-22 under 35 U.S.C. 102(b) as being anticipated by Sharma. Applicants respectfully traverse the rejections for at least the reasons set forth below.

To anticipate a claim, the reference must teach each and every element of the claim. M.P.E.P. § 2131. However, Sharma did not disclose the feature of "a non-signaling layer having a voltage reference signal trace" as claimed in claim 16. According to column 3 line 53 – column 4 line 19, on which the Office Action relied to reject the present application, some traces are moved to the voltage reference layer. However, *Sharma did not teach that the moved traces including the voltage reference signal trace.* According to the objects and advantages described in Sharma (column 4 lines 1-19), Sharma focused on increasing I/O by moving traces into voltage reference layers, for example, power layer or ground layer. However, Sharma did not

Customer No.: 31561
Application No.: 10/063,737
Docket No.: 8727-US-PA

notice interference between voltage reference signal trace and other signal traces. Therefore, those skilled in the art are not taught to move voltage reference signal trace into the voltage reference layer according to Sharma.

For at least the reasons stated above, it is obvious that Sharma did not teach each and every element of claim 16. Therefore, claim 16 is patentable over Sharma.

Claims 17-22 are therefore patentable over Sharma as a matter of law since their depending claim 16 is patentable over Sharma.

The Office Action further rejected claims 16-22 under 35 U.S.C. 102(b) as being anticipated by Honsinger. Applicants respectfully traverse the rejections for at least the reasons set forth below.

To anticipate a claim, the reference must teach each and every element of the claim. M.P.E.P. § 2131. However, Honsinger did not disclose the feature of "a non-signaling layer having a voltage reference signal trace" as claimed in claim 16. According to column 4, lines 12-15, on which the Office Action relied to reject the present application, wiring media layers are typically arranged as wiring layer pairs with a voltage reference layer. However, the voltage reference layer "provides power and serves to shield signals in one plane pair from interference from signals in another plane pair" (column 4, lines 20-23). It is obvious that, Honsinger taught to *prevent interference between two plane pairs* but not to prevent interference between the

Customer No.: 31561
Application No.: 10/063,737
Docket No.: 8727-US-PA

voltage reference signal trace and other signal traces. Therefore, those skilled in the art are not taught to design voltage reference signal trace into the voltage reference layer according to Honsinger.

Further, neither Sharma nor Honsinger dealt with the problem of interference between the voltage reference signal trace and other signal traces, those skilled in the art would not take these references to solve the problem, which is caused by interference between the voltage reference signal trace and other signal traces.

For at least the reasons stated above, it is obvious that Honsinger did not teach each and every element of claim 16. Therefore, claim 16 is patentable over Honsinger.

Claims 17-22 are therefore patentable over Honsinger as a matter of law since their depending claim 16 is patentable over Honsinger.

For at least the foregoing reasons, Applicant respectfully submits that independent claim 16 patently defines over the prior art references, and should be allowed. For at least the same reasons, dependent claims 17-22 patently define over the prior art as well.

Customer No.: 31561
Application No.: 10/063,737
Docket No.: 8727-US-PA

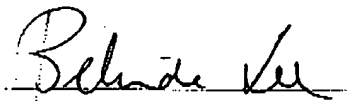
CONCLUSION

For at least the foregoing reasons, it is believed that the pending claims 16-22 are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

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Respectfully submitted,


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